

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Currently Amended) An OLED panel driving apparatus having an OLED in ~~at each intersecting point~~ intersection of a plurality of common anode lines and a plurality of common cathode lines, which are aligned in a matrix configuration, to form a pixel, the OLED panel driving apparatus ~~further~~ comprising:

a data driving circuit connected to a the plurality of common anode lines, and having comprising a plurality of data output units ~~unit~~ selectively connecting each of the common anode lines to a constant current source or to a high impedance terminal HIZ; and

a scan driving circuit connected to the plurality of common cathode lines, and having comprising a plurality of scan output units selectively connecting each of the common cathode lines at least to a high impedance terminal HIZ or to ground ~~a grounding earth~~.

2. (Currently Amended) The OLED panel driving apparatus according to claim 1, wherein the each of the plurality of scan output units ~~unit~~ ~~further~~ comprises a high voltage terminal to selectively connect each of the common cathode lines to the high voltage terminal, to the high impedance terminal HIZ or

to ground the grounding earth.

3. (Currently Amended) The OLED panel driving apparatus according to claim 2, further comprising an OLED control circuit for generating various signals including a horizontal synchronization signal, a vertical synchronization signal and a display data signal.

4. (Currently Amended) The OLED panel driving apparatus according to claim 3, wherein the scan driving circuit further comprises:

~~a scan output unit;~~

a shift register ~~unit for generating~~ that generates a scan control signal C_{SCAN} ~~with respect to the~~ corresponding to each common cathode line; and

a control logic ~~unit for executing~~ that executes the logic processing of the scan control signal C_{SCAN} , supplied from the shift register ~~unit~~, ~~in order to~~ generate a high impedance control signal C_{HIZ} , ~~and to supply to~~ for transmitting to the corresponding scan output unit.

5. (Currently Amended) The OLED panel driving apparatus according to claim 4, wherein each of the scan output units ~~unit~~ comprises:

an inverter gate, ~~its~~ including an input ~~end being~~ connected to the high impedance control signal ~~end~~ C_{HIZ} ;

a NOR gate, ~~its one~~ including a first input ~~end being~~ connected to the scan control signal ~~end~~ C_{SCAN} , and ~~its the other~~ a second input ~~end being~~

connected to the high impedance control signal end C_{HIZ} ;

a NAND gate, ~~its one~~ including a first input end ~~being connected to the~~ scan control signal end C_{SCAN} , and ~~its the other~~ a second input end ~~being connected to the~~ an output end of the inverter gate;

a first level shifter ~~being connected to the~~ an output end of the NAND gate and converting a logic level ~~into~~ to the high voltage level;

a second level shifter ~~being connected to the~~ an output end of the NOR gate and converting a logic level ~~into~~ to the high voltage level;

a first PMOSFET having a gate connected to the a first level shift and a source connected to the high voltage terminal; and

a first NMOSFET having a gate connected to the a second level shift, a drain connected to the drain of the first PMOSFET, and a source being grounded, wherein

the plurality of common cathode lines are connected to the first PMOSFET and the drain of the first NMOSFET.

6. (Currently Amended) The OLED panel driving apparatus according to claim 4, wherein ~~the shift register unit is configured to have shift registers as many as the number of the common cathode lines;~~

the vertical synchronization signal is applied to a data input end of a first row of a shift register ~~in the shift registers;~~

the horizontal synchronization signal is applied to the all clock ends of the shift registers register; and

~~the an~~ output of ~~one row~~ each of the shift registers is connected to a corresponding ~~row of a~~ scan control signal end C_{SCAN} in the corresponding scan output unit, and to a data input end of a next ~~row of the~~ shift register.

7. (Currently Amended) The OLED panel driving apparatus according to claim 6, wherein the control logic unit is configured to ~~have~~ include a number of 2-input XNOR gates ~~as many as~~ corresponding to the number of the common cathode lines;

~~one a first~~ input end of each of the XNOR gates is connected to an the output end of its of a corresponding ~~row of the~~ shift register;

~~the other a second~~ input end of each of the XNOR gates is connected to the an output end of a next row of the shift register; and

~~the an~~ output end of each of the XNOR gates is connected to the high impedance control signal end C_{HIZ} of its ~~corresponding row of a~~ corresponding the scan output unit.

8. (Currently Amended) The OLED panel driving apparatus according to claim 3, wherein the data driving circuit further comprises:

~~a data output unit;~~

a shift register/latch unit for sequentially shifting and storing the data applied to the each common anode line in accordance with the a control signal from the OLED control circuit; and

a PWM generating unit for converting the data supplied from the shift

register/latch unit into a PWM control signal ~~PWM~~ having ~~various~~ time widths ~~width~~ varying in accordance with gray level of the data, and supplying transmitting the PWM control signal to the corresponding data output unit.

9. (Currently Amended) The OLED panel driving apparatus according to claim 8, wherein each of the data output units comprises ~~unit comprises~~:

a second PMOSFET and a third PMOSFET to form current mirror circuits;

a third level shifter for converting the logic level of the PWM control signal ~~PWM~~ supplied from the PWM generating unit into the high voltage level; and

a fourth PMOSFET for selectively connecting the corresponding common anode line to the constant current source and setting the high impedance terminal HIZ with "on"/"off" by the third level shifter.

10. (Original) The OLED panel driving apparatus according to claim 9, wherein each of the data output units further comprises ~~comprising~~ a second NMOSFET for grounding the common anode line with "on" by an outer control signal Reset in the "off" state of the fourth PMOSFET.

11. (Cancelled)

12. (Cancelled)

13. (New) A method for driving an OLED panel having an OLED at each intersection of a plurality of common anode lines and a plurality of common cathode lines, which are aligned in a matrix configuration to form a pixel, the method comprising:

applying constant current to the plurality of common anode lines by a PWM control signal having time widths varying in accordance with a gray level of displayed pixel data while sequentially scanning and converting each one of the common cathode lines to ground during a horizontal scanning time interval;

connecting the common cathode line selected to be scanned to ground during the horizontal scan time interval;

refreshing the common cathode line connected to ground by connecting the common cathode line to a predetermined high voltage level during a next horizontal scan time interval; and,

maintaining the common cathode line connected to the predetermined high voltage level in a high impedance state prior to scanning.